

MARK	TYPE	MOUNTING	SUPPLY FAN								EXHAUST FAN								GLYCOL HEATING COIL (160°F EWT, 140°F LWT)												CHILLED WATER COIL (45°F EWT, 55°F LWT)												ENERGY RECOVERY WHEEL																REMARKS								
			CFM				MOTOR				CFM				MOTOR				MBH TON				GPM WPD				FINS PER IN. COIL ROWS				EAT LAT APD				MBH TON				GPM WPD				FINS PER IN. COIL ROWS				EAT LAT APD				SUMMER DESIGN CONDITIONS									WINTER DESIGN CONDITIONS							
			CFM	ESP	RPM	HP	VOLTAGE	PHASE	MCA	MOPP	CFM	ESP	RPM	HP	VOLTAGE	PHASE	MCA	MOPP	MBH	TON	GPM	WPD	FINS PER IN.	COIL ROWS	EAT	LAT	APD	MBH	TON	GPM	WPD	FINS PER IN.	COIL ROWS	EAT	LAT	APD	OUTSIDE AIR DB	WB	DB	WB	SUPPLY AIR DB	WB	DB	WB	EXHAUST AIR DB	WB	DB	WB	OUTSIDE AIR DB	WB	DB	WB	RETURN AIR DB	WB	DB	WB	SUPPLY AIR DB	WB		DB	WB	EXHAUST AIR DB	WB	DB	WB		
MAU-1	MODULAR	HORIZONTAL	8510	2.0"	1750	15	208	3	57.8	100	8060	2.0"	1750	10	208	3	38.5	60	443.0	44.3	1.7"	8	2	40.0	94.7	0.10"	280.8	200.1	56.2	8.8"	10	5	78.8/64.4	52.4/52.0	.33"	91.0	73.8	72.0	59.9	76.9	65.6	87.4	69.3	4.0	3.0	72.0	59.9	53.8	46.4	17.4	17.4	1-9															
MAU-2	MODULAR	HORIZONTAL	5710	2.0"	1750	7.5	208	3	30.3	50	6020	2.0"	1750	5	208	3	20.9	35	297.0	29.7	0.9"	9	2	40.0	97.6	0.11"	220.9	153.7	44.4	10.1"	11	5	78.8/64.4	52.4/51.4	.45"	91.0	73.8	72.0	59.9	78.0	66.6	87.6	68.8	4.0	3.0	72.0	59.9	49.9	43.0	16.9	16.9	1-9															

REMARKS:

- FURNISH WITH 8" HIGH FACTORY FABRICATED MOUNTING CURB. COORDINATE UNIT SELECTION WITH STRUCTURAL STEEL AND EXISTING STRUCTURAL FRAMING.
- FURNISH WITH 12"x12" WINDOW IN EACH FAN SECTION.
- FURNISH WITH AN INTERIOR MARINE TYPE LIGHT, WITH EXTERIOR MOUNTED LIGHT SWITCH, FOR EACH ACCESSIBLE SECTION.
- FURNISH WITH ELECTRICAL ITEMS PREWIRED WITH A JUNCTION BOX, FLEXIBLE CONDUIT AND WIRING FOR FIELD CONNECTION ALONG THE EXTERIOR OF THE UNIT BY THE PROJECT ELECTRICAL CONTRACTOR.
- FURNISH SUPPLY FAN, EXHAUST FAN AND RECOVERY WHEEL WITH BELT DRUMS.
- FURNISH WITH 2" PLATED TYPE PRE-FILTER AND BAG TYPE FINAL FILTER.
- FURNISH FAN/MOTOR SET WITH AN INDEPENDENT RIGID BASE, SPRING ISOLATORS AND FLEXIBLE CONNECTIONS ON DUCT AND ELECTRICAL POWER.
- PROVIDE WITH PREMIUM EFFICIENCY MOTOR AND VARIABLE FREQUENCY DRIVE WITH MANUAL BY-PASS, FOR EACH FAN.
- FURNISH RECOVERY WHEEL WITH ¾ HP, 115 VOLT, SINGLE PHASE DRIVE MOTOR.

MARK	MOUNTING	TYPE	NOMINAL CFM	S.P.	COOLING					HEATING				ELECTRICAL		REMARKS
					GPM	WPD	MBH T.C.	MBH S.C.	PIPING SIZE	GPM	WPD	MBH T.H.	PIPING SIZE	MOTOR FLA	VOLTS/PH	
FC-1	HORIZONTAL	CONCEALED	150	.25"	1.8	1.6	4.0	5.5	3/4"	0.8	0.9	7.8	3/4"	0.8	120/1	1, 2, 3, 4, 5, 7
FC-2	HORIZONTAL	CONCEALED	200	.50"	2.6	3.4	5.6	6.2	3/4"	1.1	3.1	10.5	3/4"	1.1	120/1	1, 2, 3, 4, 5, 7
FC-3	HORIZONTAL	CONCEALED	250	.25"	3.2	7.8	6.6	9.5	3/4"	1.5	3.2	14.6	3/4"	1.9	120/1	1, 2, 3, 4, 5, 7
FC-4	HORIZONTAL	CONCEALED	400	.30"	4.2	3.7	9.8	14.3	1"	2.1	1.6	20.2	3/4"	2.5	120/1	1, 2, 3, 4, 5, 7
FC-5	HORIZONTAL	CONCEALED	600	.40"	5.4	7.4	12.0	16.9	1"	2.7	2.9	26.8	3/4"	1.6	120/1	1, 2, 3, 4, 5, 7
FC-6	HORIZONTAL	CONCEALED	800	.30"	7.6	14.6	17.0	23.0	1 1/4"	3.4	4.7	33.4	3/4"	5.0	120/1	1, 2, 3, 4, 5, 7
FC-7	HORIZONTAL	EXPOSED	330	.15"	1.8	1.6	7.8	6.1	3/4"	0.8	1.5	14.0	3/4"	.5	120/1	4, 5, 6, 7, 8
FC-8	HORIZONTAL	EXPOSED	450	.30"	2.6	3.4	11.5	8.5	3/4"	1.0	2.6	19.3	3/4"	1.0	120/1	4, 5, 6, 7, 8
FC-9	HORIZONTAL	EXPOSED	640	.30"	3.2	7.8	13.9	11.0	1"	1.3	4.8	24.0	3/4"	1.7	120/1	4, 5, 6, 7, 8
FC-10	HORIZONTAL	EXPOSED	800	.35"	4.2	3.7	18.5	14.3	1"	1.8	.14	34.0	3/4"	(2) 2.5	120/1	4, 5, 6, 7, 8
FC-11	HORIZONTAL	EXPOSED	240	.35"	1.5	20.8	7.8	5.5	3/4"	0.5	.01	3.2	3/4"	1.1	120/1	4, 5, 6, 7, 8

REMARKS:

- FURNISH WITH NEOPRENE RUBBER VIBRATION ISOLATORS IN EACH HANGER ROD.
- FURNISH WITH FLEXIBLE DUCT CONNECTORS ON INLET AND DISCHARGE COLLARS.
- FURNISH WITH AUXILIARY DRAIN PAN UNDER CHILLED WATER PIPING CONNECTIONS AND VALVES.
- TOGGLE TYPE ELECTRICAL DISCONNECT SWITCH FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- FURNISH WITH THREE ROW CHILLED WATER COOLING COIL AND TWO ROW AUXILIARY HOT WATER HEATING COIL.
- FURNISH WITH 1" FILTER FRAME AND THROW-WAY TYPE AIR FILTER.
- CAPACITIES BASED ON 180° ENT. HOT WATER TEMP.; 45° ENT. CHILLED WATER TEMP. AND 60° ENT. AIR TEMP.; HEATING: 80° EDB, 67° EWB COOLING.
- PROVIDE REMOVABLE ACCESS PANELS. HINGED ACCESS PANELS ARE NOT ACCEPTABLE.

MARK	FACE	PERFORMANCE	MOUNTING	STYLE	NECK SIZE	MODULE SIZE	MAX. CFM	MAX APD (IN)	MAX NC	DEFLECTION	REMARKS
S-1	LOVERED	SUPPLY	CEILING	LAY IN	6"x6"	24"x24"	100	.04	20	4-WAY	1, 2, 3
S-2	LOVERED	SUPPLY	CEILING	LAY IN	9"x9"	24"x24"	200	-	-	4-WAY	1, 2, 3
S-3	LOVERED	SUPPLY	CEILING	LAY IN	12"x12"	24"x24"	300	-	-	4-WAY	1, 2, 3
S-4	BAR TYPE	SUPPLY	SIDEWALL	SURFACE	8"x6"	10"x8"	100	-	-	4-WAY	1, 2, 4
S-5	LOVERED	SUPPLY	CEILING	LAY IN	6"x6"	12"x24"	100	-	-	4-WAY	1, 2, 3
S-6	LOVERED	SUPPLY	CEILING	LAY IN	9"x9"	12"x24"	225	-	-	4-WAY	1, 2, 3
S-7	LOVERED	SUPPLY	CEILING	LAY IN	6"x6"	24"x24"	100	-	-	3-WAY	1, 2, 3
S-8	LOVERED	SUPPLY	CEILING	LAY IN	9"x9"	24"x24"	200	-	-	3-WAY	1, 2, 3
S-9	LOVERED	SUPPLY	CEILING	LAY IN	12"x12"	24"x24"	300	-	-	3-WAY	1, 2, 3
S-10	BAR TYPE	SUPPLY	SIDEWALL	SURFACE	12"x6"	14"x8"	150	-	-	4-WAY	1, 2, 4
S-11	BAR TYPE	SUPPLY	SIDEWALL	SURFACE	16"x12"	18"x14"	400	-	-	4-WAY	1, 2, 4
S-12	LOVERED	SUPPLY	CEILING	LAY IN	6"x6"	24"x24"	100	.04	20	2-WAY	1, 2, 3
S-13	LOVERED	SUPPLY	CEILING	LAY IN	9"x9"	24"x24"	200	-	-	2-WAY	1, 2, 3
M-1	BAR TYPE	MAKE UP AIR	CEILING	LAY IN	10"x22"	12"x24"	100	.04	<20	4-WAY	1, 3,
M-2	BAR TYPE	MAKE UP AIR	CEILING	LAY IN	22"x22"	24"x24"	400	.04	<20	4-WAY	1, 4
M-3	BAR TYPE	MAKE UP AIR	CEILING	SURFACE	16"x8"	18"x10"	300	-	-	4-WAY	1, 4
M-4	BAR TYPE	MAKE UP AIR	SIDEWALL	SURFACE	8"x6"	10"x8"	100	-	-	4-WAY	1, 4
M-5	BAR TYPE	MAKE UP AIR	SIDEWALL	SURFACE	18"x12"	20"x14"	400	-	-	4-WAY	1, 3
R-1	BAR TYPE	RETURN	CEILING	LAY IN	10"x22"	12"x24"	400	.04	<20	1-WAY	1, 3, 5
R-2	BAR TYPE	RETURN	CEILING	LAY IN	22"x22"	24"x24"	800	.04	<20	1-WAY	1, 3, 5
E-1	BAR TYPE	EXHAUST	CEILING	LAY IN	10"x22"	12"x24"	400	.04	<20	1-WAY	1, 3
E-2	BAR TYPE	EXHAUST	SIDEWALL	SURFACE	8"x6"	10"x8"	100	.04	<20	1-WAY	1, 4
E-3	BAR TYPE	EXHAUST	CEILING	SURFACE	16"x12"	18"x14"	300	.04	<20	1-WAY	1, 4
E-4	BAR TYPE	EXHAUST	CEILING	SURFACE	8"x8"	10"x10"	100	.04	<20	1-WAY	1, 4
E-5	BAR TYPE	EXHAUST	SIDEWALL	SURFACE	16"x8"	18"x10"	200	.04	<20	1-WAY	1, 4
E-6	BAR TYPE	EXHAUST	SIDEWALL	SURFACE	22"x22"	24"x24"	400	.04	<20	1-WAY	1, 4
E-7	BAR TYPE	EXHAUST	SIDEWALL	SURFACE	18"x12"	20"x14"	370	.04	<20	1-WAY	1, 4

REMARKS:

- FURNISH WITH FACTORY WHITE BAKED ENAMEL FINISH.
- PROVIDE WITH OPPOSED BLADE VOLUME DAMPER.
- PROVIDE LAY-IN FRAME WITH MARGINS FOR T-BAR CEILING.
- FURNISH WITH SURFACE MOUNTING FRAME.
- PROVIDE 1" FILTER AND HINGED FACE FOR ACCESS TO FILTERS. PROVIDE ONE FILTERS INSTALLED AND ONE FILTER FOR SPARE PER GRILLE.

MARK	SYSTEM	MOUNTING	TYPE	GPM	HEAD (FT)	MOTOR					REMARKS
						H.P.	RPM	VOLTS/PH	FLA	MCP	
CWP-29-01	CHILLED WATER	HORIZ BASE MTD	CENTRIFUGAL	435	100	20	1750	208/3	62.1	100P	1, 2
CWP-29-02	CHILLED WATER	HORIZ BASE MTD	CENTRIFUGAL	435	100	20	1750	208/3	62.1	100	1, 2
HWP-29-01	HOT WATER	HORIZ BASE MTD	CENTRIFUGAL	178	100	10	1750	208/3	32.2	60	1, 2
HWP-29-02	HOT WATER	HORIZ BASE MTD	CENTRIFUGAL	178	100	10	1750	208/3	32.2	60	1, 2
GWP-29-01	GLYCOL COILS	HORIZ BASE MTD	CENTRIFUGAL	94	25	2	1750	208/3	7.8	15	1

REMARKS:
1. PROVIDE WITH 150 # FLANGED CONNECTIONS.
2. PROVIDE WITH PREMIUM EFFICIENCY MOTOR AND VARIABLE FREQUENCY DRIVE.

MARK	TYPE	MOUNTING	PIPE SIZE	STRAINER	GPM	MAX. PRESSURE DROP FT H ₂ O	REMARKS
AS-29-01	CENTRIFUGAL	CHILLED WATER	6"	3/8" PERF.	475	10	1
AS-29-02	CENTRIFUGAL	HOT WATER	4"	3/8" PERF.	320	10	1
AS-29-03	CENTRIFUGAL	GLYCOL	3"	3/8" PERF.	90	5	1

REMARKS:
1. AUTOMATIC AIR VENT, INLET AND OUTLET TRANSITIONS AS REQUIRED.

MARK	TYPE	MOUNTING	TANK SIZE	PUMP						REMARKS	
				TYPE	GPM	FT. HD.	RPM	H.P.	VOLTS/PH.		
GFS-29-01	PACKAGED	FLOOR	30 GAL.	HORIZ. CENTRIFUGAL	3.0	63.0	3450		1/2	115/1	1, 2, 3
REMARKS: 1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 2. PROVIDE 30X VOLUME OF PROPYLENE GLYCOL TO SYSTEM. 3. PROVIDE OPERATING CONTROLS AND DISCONNECT SWITCH.											

HUMID. NO.	SYSTEM	LOCATION	CFM	ENT. AIR		LVG. AIR		CAPACITY LBS/HR	KW INPUT	VOLTAGE	REMARKS
				DB	WB	DB	WB				
H-29-01	MUA-1	ATTIC	8510	80	55	80	67	280	20	208/3/60	1, 2, 3
H-29-02	MUA-2	ATTIC	5710	80	55	80	67	200	15	208/3/60	1, 2, 3

REMARKS:

1. PROVIDE ADEQUATE DISTANCE DOWNSTREAM OF HUMIDIFIER FOR PROPER ABSORPTION PER MANUFACTURERS RECOMMENDATIONS.
2. PROVIDE STEAM DISCHARGE HOSE AND DUCT DISPERSION GRID SIZED TO FIT APPLICATION.
3. UNIT SHALL BE CAPABLE OF OPERATING WITH CITY WATER. PROVIDE VALVES AND ACCESSORIES TO PIPE ACCORDING TO UNIT MANUFACTURER'S RECOMMENDATION.

MARK	TYPE	MATERIAL	MOUNTING	TANK VOLUME	ACCEPTANCE VOLUME	SIZE	REMARKS
ET-29-01	DIAPHRAGM	STEEL	VERTICAL	62 GAL	34 GAL	46"H x 22" DIA	1, 2
ET-29-02	DIAPHRAGM	STEEL	VERTICAL	32 GAL	11.5 GAL	46"H x 15" DIA	1, 2

REMARKS:
 1. VERTICAL PRE-CHARGED EXPANSION TANK WITH BUTYL RUBBER DIAPHRAGM.
 2. FURNISH WITH MOUNTING BASE SET ON 4" CONCRETE PAD 6" LARGER ON EACH SIDE THAN BASE OF TANK.

MARK	TYPE	MOUNTING	WIDTH INCHES	HEIGHT INCHES	DEPTH INCHES	MATERIAL	SERVES	AIR FLOW (CFM)	MAX. PRESSURE DROP	MAXIMUM FACE VELOCITY	REMARKS
L-1	FLUSH MOUNT	EXTERIOR WALL	30	54	6	EXTRUDED ALUMINUM	OUTSIDE AIR	4255	0.10" W.C.	378 FPM	1, 2, 3
L-2	FLUSH MOUNT	EXTERIOR WALL	30	54	6	EXTRUDED ALUMINUM	EXHAUST AIR	8060	0.15" W.C.	716 FPM	1, 2, 3
L-3	FLUSH MOUNT	EXTERIOR WALL	30	54	6	EXTRUDED ALUMINUM	OUTSIDE AIR	2855	0.05" W.C.	254 FPM	1, 2, 3
L-4	FLUSH MOUNT	EXTERIOR WALL	30	54	6	EXTRUDED ALUMINUM	EXHAUST AIR	6020	0.13" W.C.	535 FPM	1, 2, 3

REMARKS:

1. ANODIZED ALUMINUM - COLOR SELECTED BY ARCHITECT.
2. FIXED DRAINABLE BLADES, LOW WATER INDUCTION, MINIMUM 50% FREE AREA.
3. FINISH WITH ALUMINUM BIRD SCREEN.

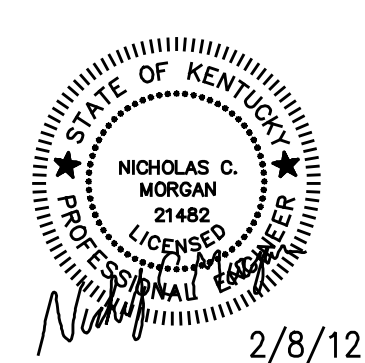
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UNIT NO.	LOCATION	TYPE UNIT	CFM	MIN. BTUH	ENT. TEMP. °F		GPM	MAX. P.D.	MOTOR		REMARKS
					AIR	WATER			HP	PHASE VOLT	
UH-29-01	ATTIC	HORIZONTAL	1100	95,000	60	180	9.8	2.5	1/8	1/115	1, 2
UH-29-02	ATTIC	HORIZONTAL	1100	95,000	60	180	9.8	2.5	1/8	1/115	1, 2
UH-29-03	LAUNDRY	HORIZONTAL	3300	150,000	60	180	15.0	1.3	1/4	1/115	1, 2
UH-29-04	LAUNDRY	HORIZONTAL	3300	150,000	60	180	15.0	1.3	1/4	1/115	1, 2
UH-29-05	LAUNDRY	VERTICAL	1100	98,000	60	180	10.0	0.6	1/8	1/115	1, 2

REMARKS:
 1. FURNISH WITH LOUVERED DISCHARGE, THERMOSTAT AND MOUNTING HARDWARE.
 2. FURNISH WITH UNIT MOUNTED DISCONNECT SWITCH.

UNIT NO.	SYSTEM SERVED	CHEMICAL STORAGE	PUMP TYPE	ELECTRICAL	REMARKS
CF-29-01	HOT WATER HEATING	55 GAL.	POSITIVE DISPLACEMENT	115/1/60	1, 2, 3
REMARKS: 1. PROVIDE ONE YEAR TREATMENT AND TESTING SERVICE. 2. PROVIDE WITH TEST KIT. 3. PROVIDE CONTACT TYPE WATER METER IN DOMESTIC WATER SUPPLY AND CONNECTING WIRING.					

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Review For Design Concept Only

D. M. M.
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Location	VA MEDICAL CENTER, LEX., KY
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Date	Checked
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Building Number

Drawing Number

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Office of
Construction
and Facilities
Management

Department of
Veterans Affairs